

Computational Science Center Facility Risk Assessment

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|---|--------------------------------------|--------------------|-------------------|------------|--------------------|-------------------------------|
| Name(s) of Risk Team Members: Heinrich, Bernholz, Bennett, Lambert, McGuigan, Stampf, Slate, Z.Xu, Kang, Efstathiadis, D'Imperio, T.Lu, Samulyak (from LS Emrick, Sautkulis, Colichio, Robertson) | Point Value → Parameter ↓ | 1 | 2 | 3 | 4 | 5 |
| Area/Facility Description Title: Area/Facility # (if applicable): CSC-FRA-463 (from LS-FRA-463) | Occupancy or Use | ≤once/year | ≤once/month | ≤once/week | ≤once/shift | >once/shift |
| Area/Facility Description: Building 463 | Severity | First Aid Only | Medical Treatment | Lost Time | Partial Disability | Death or Permanent Disability |
| | Likelihood | Extremely Unlikely | Unlikely | Possible | Probable | Multiple |
| Approved by: MLHeinrich Date: 6/9/06 Rev. #: 0 | | | | | | |
| Reason for Revision (if applicable): | | | | | Comments: | |

| Physical Item or Activity | Hazard(s) | Before Controls | | | | Initial Controls | After Initial Controls | | | | Control(s) Added to Reduce Risk | After Additional Controls | | | | % Risk Reduction |
|--|--|-----------------|------------|--------------|-------------|---|------------------------|------------|--------------|-------------|---------------------------------|---------------------------|------------|--------------|-------------|------------------|
| | | Occupancy A | Severity B | Likelihood C | Risk* AxBxC | | Occupancy A | Severity B | Likelihood C | Risk* AxBxC | | Occupancy A | Severity B | Likelihood C | Risk* AxBxC | |
| Walking | Slips, trips, and falls | 4 | 3 | 4 | 36 | Lighting, building maintenance, new stair treads and handrails, Tier I inspections, general housekeeping | 4 | 2 | 3 | 24 | | | | | | |
| Walking on ice/snow (outdoor hazards associated with winter) | Slips, trips, and falls (contusions, fractures, broken bones, back injuries) | 4 | 4 | 4 | 64 | Application of sand and salt on icy walking surfaces, drainage at water collection points, grounds maintenance, delayed opening of BNL, wearing appropriate footwear | 4 | 3 | 8 | 48 | | | | | | |
| Indoor air quality | Allergies, asthma, headaches, pulmonary exposure, hazards associated with animal living beneath the building | 4 | 3 | 3 | 36 | Building maintenance, changing air filters from A/Cs and heaters as needed, grounds maintenance (removal of water that could lead to mold), recirculation quality (air exchange rate) | 4 | 2 | 3 | 24 | | | | | | |

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| General Fire Hazards | Burns, explosion | 4 | 5 | 3 | 60 | Fire extinguishers, fire alarms, water sprinklers, Tier I inspections, building maintenance, general housekeeping to reduce combustibles, SBMS fire safety subject area and emergency planning | 4 | 2 | 2 | 16 | | | | | | |
| Security | Security hazards associated with working alone and/or late at night | 2 | 3 | 2 | 12 | Adequate lighting, buddy system, working door locks, escort service | 2 | 3 | 1 | 6 | | | | | | |
| Water bottle storage | Gastro intestinal problems due to elevated bacterial levels | 4 | 3 | 3 | 36 | Proper storage of bottles, monitoring of water quality, procedure for cleaning | 4 | 2 | 2 | 16 | | | | | | |
| Working with hot surfaces such as photocopy machine, stove and coffee-maker | Burns | 4 | 3 | 4 | 48 | Automatic timer device for coffee-maker, Tier I inspections, adherence to manufacturer's instructions of appliances | 4 | 2 | 2 | 16 | | | | | | |
| Storage of gases (such as methane, CO2, CO, hydrogen, and nitrogen) | Potential exposure pressurized gases by individual transporting chemical, gas cylinders or liquid nitrogen, from storage area to laboratory | 4 | 3 | 3 | 36 | Tier I inspections, training requirements, postings, signs, labels, and emergency placard outside door , CMS static inventory, escort for visitors, training | 4 | 2 | 2 | 16 | | | | | | |
| Hallway-low ceilings, pipe runs | Potential to hit head | 4 | 1 | 2 | 8 | Adequate lighting, postings. Assured hallways are within Life Safety Code Requirements. | 4 | 1 | 2 | 8 | | | | | | |
| Radiological Areas | Potential for exposure to radiation | | | | | Postings, general training, emergency placard info, escort for visitors | | | | | | | | | | |

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| Laboratories with chemicals and biologicals stored and used | Potential for chemical splash or exposure | 4 | 2 | 2 | 16 | Postings, PPE, training, emergency placard info, escort for visitors | 4 | 2 | 1 | 8 | | | | | | |
| Lasers | Potential for exposure to laser light | 3 | 4 | 3 | 36 | Postings, PPE, training, emergency placard info, escort for visitors | 3 | 4 | 1 | 12 | | | | | | |
| General Office Space | Repetitive motion; eye strain, back strain and injury from lifting. | 4 | 3 | 3 | 36 | Training, PPE. | 4 | 2 | 2 | 16 | | | | | | |
| General housekeeping issues | Fire, falls on same level; impaired egress; being struck by object, creating restricted walkways, slip hazards, increased fire loading. | 4 | 3 | 3 | 36 | Tier I Inspections, mandatory and voluntary, cleanout days, awareness of staff, building manager walkthroughs. | 4 | 3 | 2 | 36 | | | | | | |
| General Electrical Issues Standard electrical installations and activities throughout the Department | Shock or electrocution; reflex injury | 3 | 3 | 3 | 27 | Work planning, work permits, training, and follow manufacturer’s instructions. | 3 | 3 | 2 | 18 | | | | | | |
| Further Description of Controls Added to Reduce Risk: Response from Biology Dept. ESH Coordinator regarding CSC concerns: beeping sounds going off on equipment, are not alarming for an emergency that CSC/student/guest staff need to have a personal concern about. The beeping sounds are coming from an environmental alarms panel located next to the mailboxes. This is just to alert PE staff and poses no hazard to occupants. The alarm lights are also labeled as to their function (ie; high temperature in cold room, etc). | | | | | | | | | | | | | | | | |
| *Risk: | 0 to 20 Negligible | 21 to 40 Acceptable | | | | 41 to 60 Moderate | | | | 61 to 80 Substantial | | | | 81 or greater Intolerable | | |